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2010

# Introduction: Knowing the Wild

Etienne S. Benson

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# Introduction: Knowing the Wild

## **Abstract**

The argument that wildlife conservation and the science that supports it are contentious and politicized is, of course, not new. American wildlife managers and biologists have been complaining about "biopolitics"—understood as political interference into decisions properly left to experts—since at least as far back as the 1930s, when they first established the journals, conferences, professional associations, degree programs, and financial supporters that allowed them to lay claim to the status of an autonomous, self-accrediting profession. Conservation activists have regularly protested the manipulation of policy by (other) special interests. New administrations in Washington have brought sudden reversals in supposedly science-based government policies; populations designated as "threatened" or "endangered" under the Endangered Species Act have been delisted under one administration only to be relisted under the next, with little if any change in the scientific evidence. This sort of political conflict is well worth attending to, but as this book argues, disputes over the interpretation and application of scientific findings are not the only or, in many cases, the most important way in which wildlife biology becomes imbued with social values. As the history of wildlife radiotelemetry over the past half century shows, an engaged public, consisting often of small but highly vocal activists, some of them also scientists, has shaped the techniques that scientists can use and thus the kinds of findings that may be politicized in the first place.

## **Disciplines**

Animal Sciences | Earth Sciences | Ecology and Evolutionary Biology | Environmental Indicators and Impact Assessment | Environmental Monitoring | Forest Sciences | History of Science, Technology, and Medicine | Place and Environment | Plant Sciences | Remote Sensing | Research Methods in Life Sciences

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# Knowing the Wild

Many Americans in the second half of the twentieth century were fascinated with wild animals. They watched wildlife films and television shows, visited zoos, aquariums, and amusement parks with performing wild animals, donated money to organizations working to “save” baby seals, whales, pandas, tigers, and other charismatic creatures, and gave their support to politicians who promised to protect wild animals and their habitats, sometimes even at the cost of economic growth. They valued national parks and wilderness areas as much for the bears, wolves, elk, and other animals inhabiting them as for their scenic vistas or dramatic geological formations, and they fell in love with the raptors and other once-threatened species that began recolonizing urban areas once legal protections were in place. Conservationists and scientists learned to frame their concerns about habitat loss, pollution, and climate change in terms of the threats they posed to wild animals, recognizing that reports of the possible sighting of an ivory-billed woodpecker or the image of a polar bear on the edge of a melting ice floe were often more effective ways of stimulating action than statistics about annual rates of deforestation or rising atmospheric carbon dioxide levels.

This fascination with and concern for wild animals supported a boom in

wildlife research. Even as the proportion of Americans who hunted wild animals for pleasure or profit shrank, undermining the constituency that had largely supported wildlife research and conservation from the late nineteenth century to the mid-twentieth century, new sources of support grew. The federal environmental legislation passed in the years around the first Earth Day in 1970—especially the National Environmental Policy Act of 1969, the Marine Mammal Protection Act of 1972, and the Endangered Species Act of 1973—evinced a widespread suspicion toward narratives of modernity and progress, but it also enthroned science and technology as the most promising means of mitigating the effect on wild animals of growing human populations and levels of consumption. Scientists, after all, had often been the first to sound the alarm about vanishing wildlife, and their knowledge and expertise seemed indispensable to the project of allowing a diversity of living things and habitats to coexist with humanity.<sup>1</sup>

This faith in and support for science stimulated a search for more effective ways of studying often-elusive wild animals in their natural habitats. Often this search was framed in terms of what the environmental historian Gregg Mitman has called a “transcendent vision” of nature, which would make it possible to restore a lost, Edenic nature. Of these techniques, none had such a dramatic impact on the everyday practice of wildlife biologists or inspired so many encomiums to the potential for technology to “save nature” as wildlife radio tracking or radiotelemetry. Originating around 1960 at the unlikely intersection of wildlife management and military surveillance technologies, the use of miniaturized radio tags and collars to keep track of individual animals became virtually a *sine qua non* of wildlife research by the 1980s, dominating the pages of professional publications such as the *Journal of Wildlife Management* and serving as a symbol of modern wildlife conservation for observers of the field. One historian writing in the late 1980s described “the wolf with the radio collar, providing data for scientists to use in reestablishing the primitive ecosystems of North America,” as “the perfect symbol of our efforts to come to terms with our knowledge of nature’s order, our power over it, and our need to preserve our mythic past.” Another, a historian of big game hunting in the British Empire, described the radio tagging of a rhinoceros in Nepal as “the perfect symbol for the replacement of the hunting by the conservation ethos, imperial power by post-colonial environmental concerns.” Wedding Americans’ fascination with the wild to their equally fervent enthusiasm for technology, the rise of radio tracking as the privileged mode of knowing wild animals seems both ironic and inevitable.<sup>2</sup>

Such is the story that can be read in the existing histories of modern wildlife

conservation and in the accounts of leading conservationists and wildlife biologists. There is another, less well-known story, however, that can only be pieced together from archival sources, oral histories, and scattered news reports. This alternative story reveals fractures within the seemingly perfect, if ironic, marriage of Americans' interest in wildlife and in science and technology. Through these fractures a very different, much messier, and far more conflict-ridden history of the role of science in modern wildlife conservation becomes visible. As this book shows, technologies of wildlife research were the focus of a long-running, pervasive debate within the community of those interested in wildlife conservation, if "community" can be used to describe such a varied and sometimes tenuously connected network. Bound together by a shared interest in conserving wild animals, this community was internally fractured by deep differences over the very meaning and value of "wildlife"—differences that were reflected in their opinions about wildlife radiotelemetry.

Why, after all, did so many Americans care about wild animals? Was it because they hoped to preserve a vanishing frontier experience that they believed was essential to the American national character, as Teddy Roosevelt and other sportsman-conservationists of the late nineteenth and early twentieth century had? Because they saw wild animals as windows onto evolutionary or ecological processes, whose loss would forever compromise our ability to understand the natural world, as many twentieth-century scientists did? Because they saw wildlife as essential elements of complex ecosystems upon which the health and survival of all living creatures depended, as many late-twentieth-century conservationists did? Or because they shared the humane concerns of nineteenth-century advocates of animal welfare or the more radical animal rights philosophies of the late twentieth century, which attributed inherent, inalienable value to each individual animal life, whether or not it was a member of the human species? Privileging one or the other of these reasons for valuing wildlife could lead to very different conclusions about the proper means for "saving" it, and apparently superficial debates over means forced supposed allies to confront profound differences over ends.

In telling this alternative story of conflict and contestation over the practices of wildlife biology, this book builds on recent developments in several subfields of historical scholarship, particularly environmental history and the history of science and technology. Since the early 1990s, environmental historians have been grappling with challenges to received ideas of wilderness, most notably expressed in William Cronon's much-debated essay "The Trouble with Wil-

derness,” which argued that wilderness is a problematic human construct rather than simply a natural object. The stories told in this book reveal a richer and more nuanced discourse about the meaning of wilderness and wildness in the twentieth century than either the supporters of this argument or their critics have tended to recognize. The wilderness absolutism they critique or defend was only one thread within a broader tapestry, some of whose most vivid and illuminating scenes depict disagreements over the proper means of studying and managing “wilderness wildlife.” This book also builds on recent scholarship concerning the political, cultural, and social values inherent in the practices and material culture of scientists. By focusing on an applied field science, wildlife biology, that attracted the interest and concern of nonscientists of various kinds, it shows that late-twentieth-century science was less closed to “public engagement”—a misleading euphemism for what were often adversarial contests driven both by differences in fundamental values and by mutual incomprehension—than is often assumed.<sup>3</sup>

The argument that wildlife conservation and the science that supports it are contentious and politicized is, of course, not new. American wildlife managers and biologists have been complaining about “biopolitics”—understood as political interference into decisions properly left to experts—since at least as far back as the 1930s, when they first established the journals, conferences, professional associations, degree programs, and financial supporters that allowed them to lay claim to the status of an autonomous, self-accrediting profession. Conservation activists have regularly protested the manipulation of policy by (other) special interests. New administrations in Washington have brought sudden reversals in supposedly science-based government policies; populations designated as “threatened” or “endangered” under the Endangered Species Act have been delisted under one administration only to be relisted under the next, with little if any change in the scientific evidence. This sort of political conflict is well worth attending to, but as this book argues, disputes over the interpretation and application of scientific findings are not the only or, in many cases, the most important way in which wildlife biology becomes imbued with social values. As the history of wildlife radiotelemetry over the past half century shows, an engaged public, consisting often of small but highly vocal activists, some of them also scientists, has shaped the techniques that scientists can use and thus the kinds of findings that may be politicized in the first place.